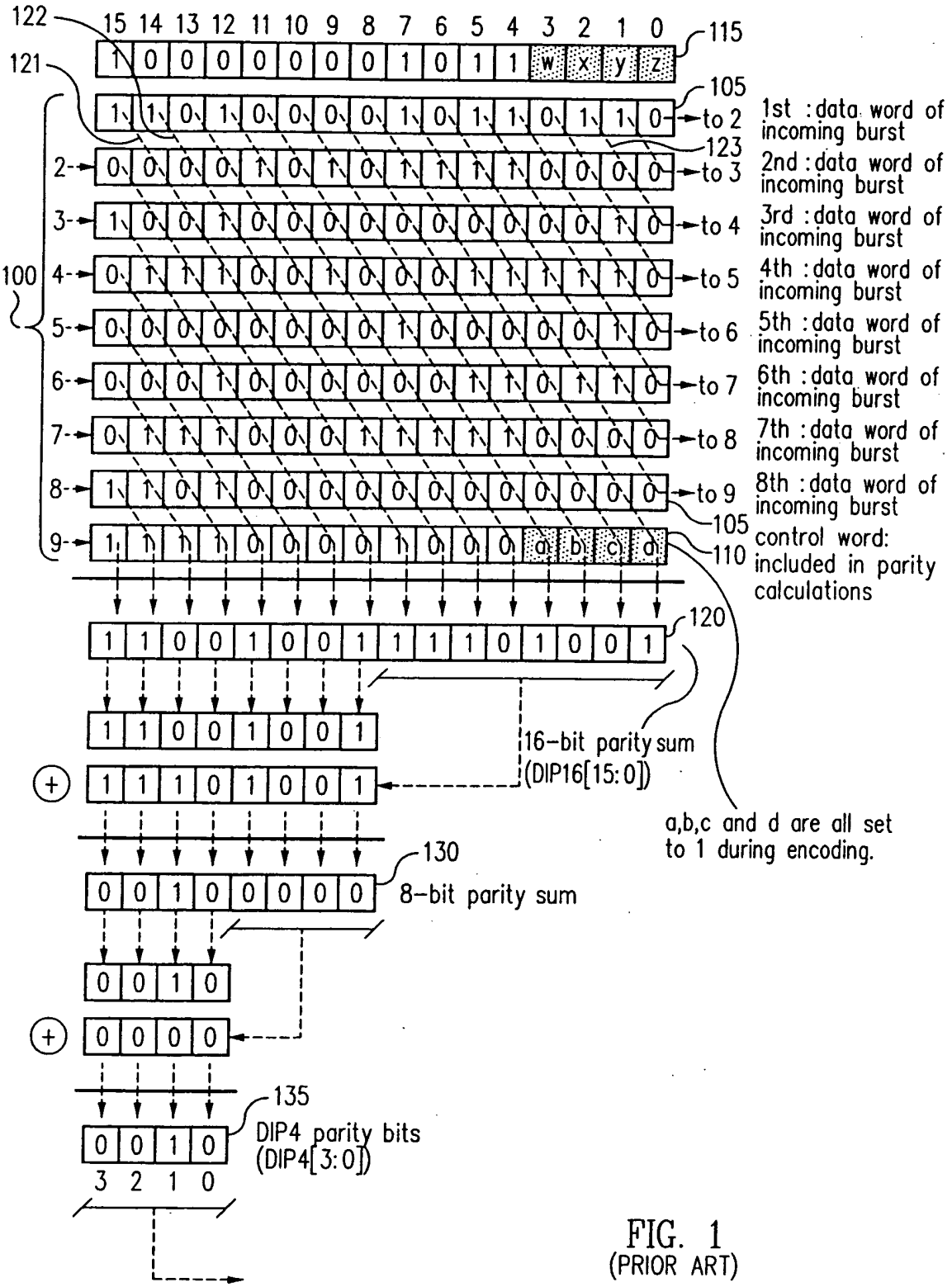

FIG. 1
(PRIOR ART)

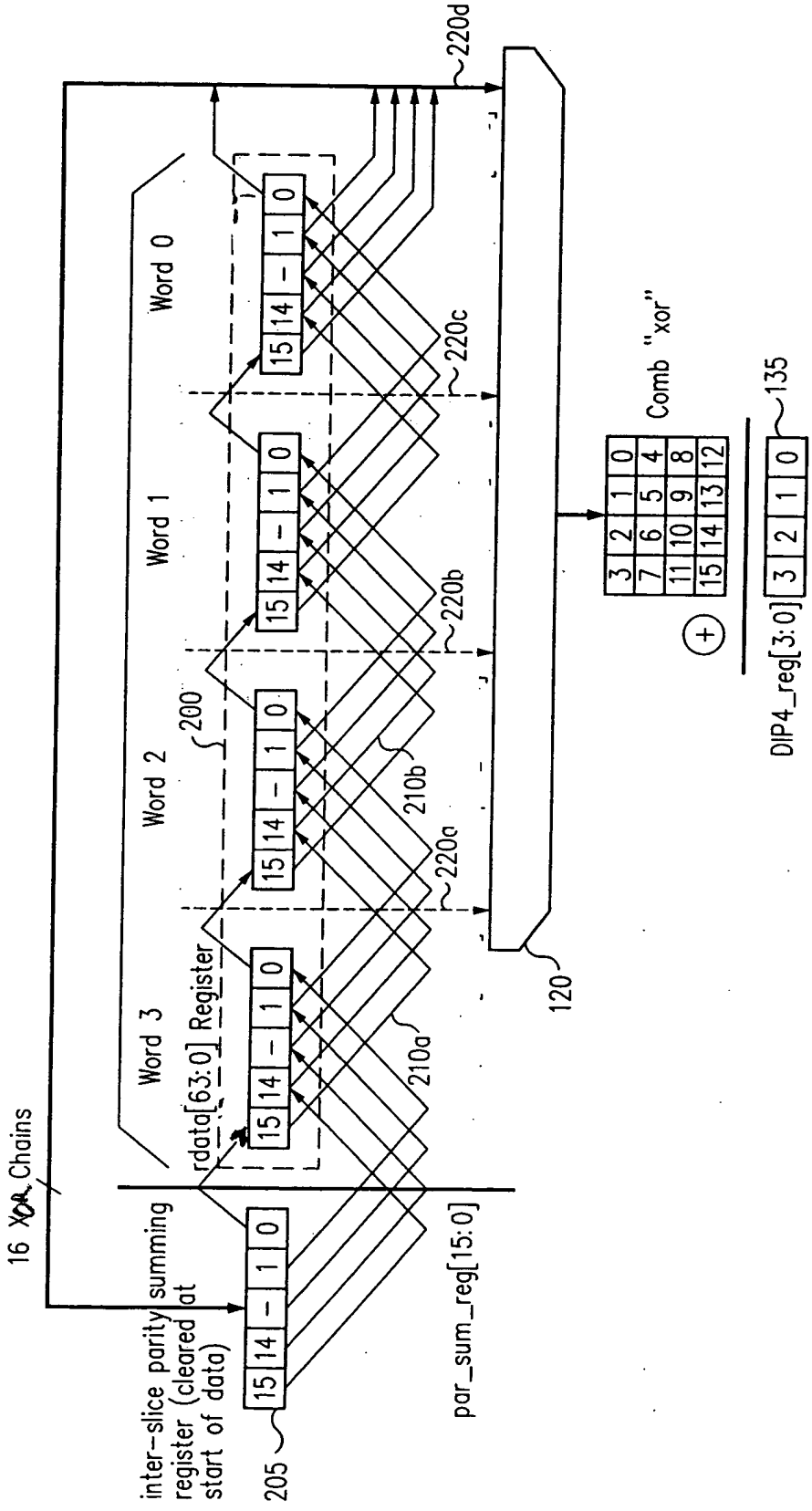
16 XOR Chains
inter-slice parity register (cleared at start of data)
summing
205
Word 3
Word 2
Word 1
Word 0
rdata[63:0] Register
200
210a
210b
220a
220b
220c
220d
120
par_sum_reg[15:0]
Comb "xor"
DIP4_reg[3:0]
135

FIG. 2

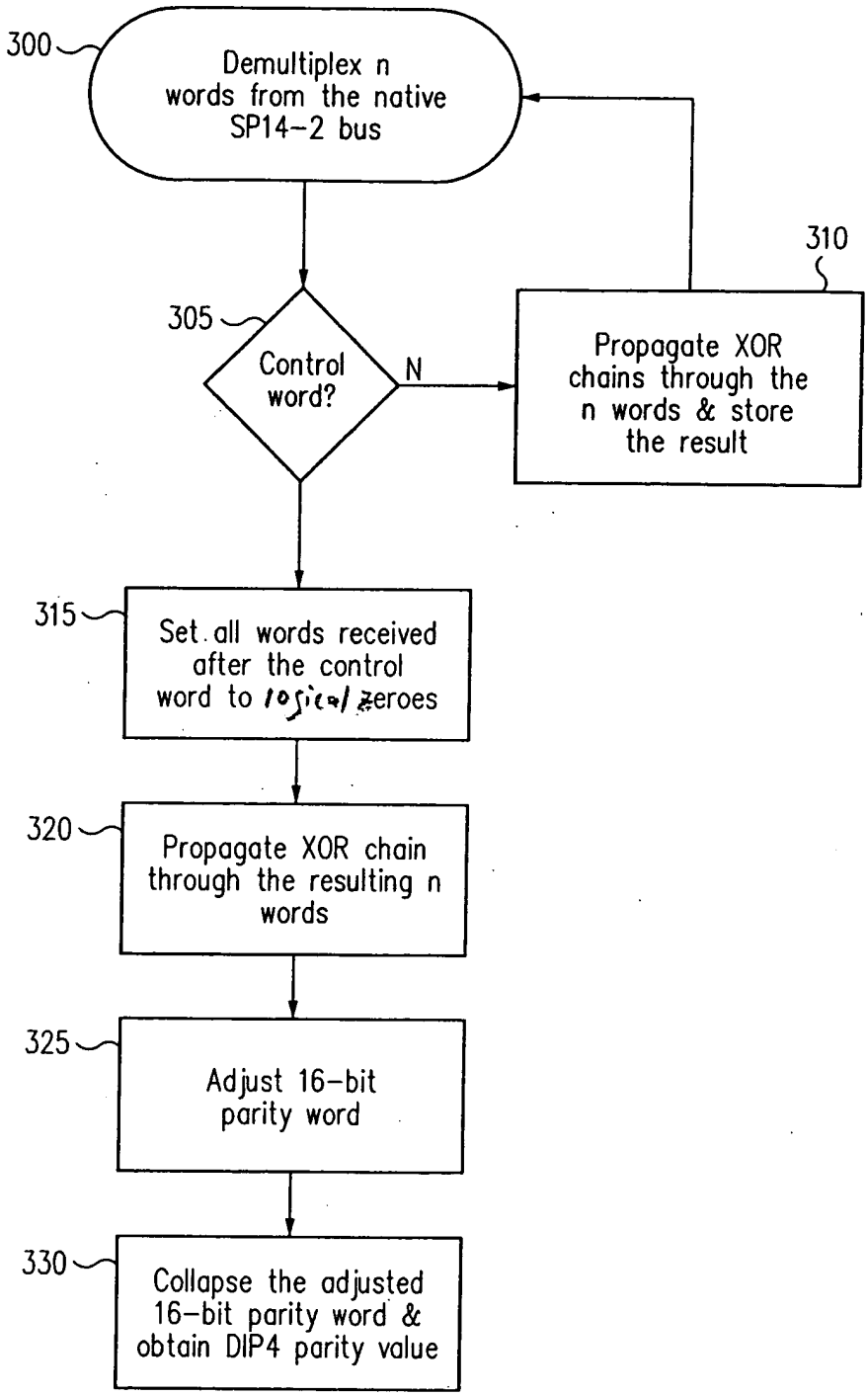
300
Demultiplex n words from the native SP14-2 bus
305
Control word?
N
310
Propagate XOR chains through the n words & store the result
315
Set all words received after the control word to logical zeroes
320
Propagate XOR chain through the resulting n words
325
Adjust 16-bit parity word
330
Collapse the adjusted 16-bit parity word & obtain DIP4 parity value

FIG. 3

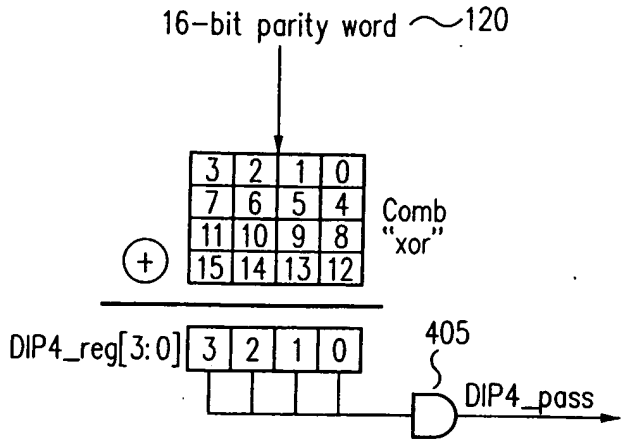
16-bit parity word
120
3 2 1 0
7 6 5 4
11 10 9 8
15 14 13 12
Comb "xor"
DIP4_reg[3:0]
3 2 1 0
405
DIP4_pass

FIG. 4

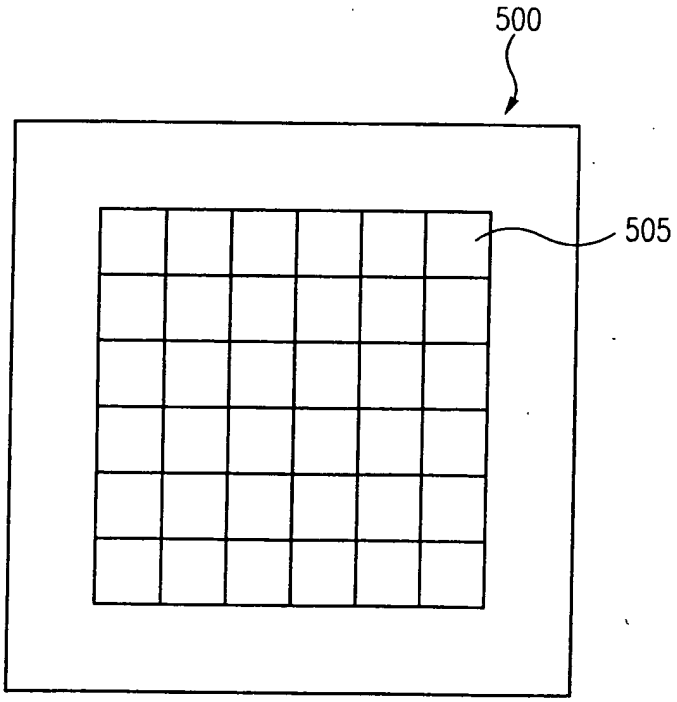
500
505

FIG. 5